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Charles J. Levine

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EXAMINER

STACE, BRENT S

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/610,690	<b>Applicant(s)</b> LEVINE ET AL.	
	<b>Examiner</b> BRENT STACE	<b>Art Unit</b> 2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 20-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 20-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 October 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Remarks***

1. This communication is responsive to the amendment filed June 16<sup>th</sup>, 2008. Claims 1-15 and 20-22 are pending. In the amendment filed June 16<sup>th</sup>, 2008, Claims 1, 11, and 20 are amended, Claims 17-19 are canceled, Claims 21 and 22 are new, and Claims 1, 11, 20, and 21 are independent Claims. This action is made FINAL.

### ***Response to Arguments***

2. Applicant's arguments filed June 16<sup>th</sup>, 2008 with respect to Claims 1-15 and 20-22 have been considered but are either not persuasive or are moot in view of the new ground(s) of rejection. See below for detailed reasoning.

3. As to the applicant's arguments with respect to exemplarily Claim 1 (including Claims 11, and 20) for the prior art(s) allegedly not teaching "synthetic data that is repeatable," the examiner respectfully disagrees. A new reference has been applied for Claims 1, and 20. For these claims, this argument is moot in view of the new ground(s) of rejection. For Claim 11, the Gray reference has been interpreted slightly different from Claims 1 and 20. The data generated in Gray is random as taught in program 6. The seed in this program is i in for loop #2. This i is seen as changing within the range 0-N and is used as a parameter of the data generation module (program 6).

4. As to the applicant's arguments with respect to exemplarily Claim 1 (including Claims 11, and 20) for the prior art(s) allegedly not teaching "the use of the seed in

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equation (7) which is implemented in program (8),” the examiner respectfully disagrees.

Gray, p. 246, col. 2, clearly teaches “Program (8) generated the series suggested in Equation (7). Also seeing program (8) there is a seed taught, as such, the use of a seed in equation 7 is seen in that 8 is the way to implement equation(7) in code. It should also be noted that Equation(7)’s G is viewed as the seed from the code, the equation, and associated table 5.

5. As to the applicant’s arguments with respect to exemplarily Claim 1 (including Claims 11, and 20) for the prior art(s) allegedly not teaching “any range of seed G,” the examiner respectfully disagrees. This argument has either been met above or is moot in view of the new ground(s) of rejection.

6. As to the applicant’s arguments with respect to exemplarily Claim 4 (including Claim 20) for the prior art(s) allegedly not teaching “wherein the seed is set for each discrete element that may be re-generated,” the examiner respectfully disagrees. This argument is moot in view of the new ground(s) of rejection, but, essentially, once the seed is set, it’s set for each element obtained and elements to be obtained (and hence re-generated as in Duckworth).

7. As to the applicant’s arguments with respect to exemplarily Claim 21 for the prior art(s) allegedly not teaching “how the seed value may be determined,” the examiner respectfully disagrees. It doesn’t appear that Claim 21 claims anything about how the seed may be determined, only that it is determined. As such, the art does not need to show this since this isn’t explicitly claimed subject matter.

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8. As to the applicant's arguments with respect to exemplarily Claim 21 for the prior art(s) allegedly not teaching "the determination of a seed value which can be used to determine a particular value of a position of the random sequence generator," the examiner respectfully disagrees. A new reference (Duckworth) was used to reject this limitation. See the corresponding rejection below.

9. As to the applicant's arguments with respect to exemplarily Claim 21 for the prior art(s) allegedly not teaching "the determination of a value of a seed prior to input into the random number generator," the examiner respectfully disagrees. A new reference (Duckworth) was used to reject this limitation. See the corresponding rejection below.

10. Any other claims argued merely because of a dependency on a previously argued claim(s) in the arguments presented to the examiner, dated June 16<sup>th</sup>, 2008, are moot in view of the examiner's interpretation of the claims and art and are still considered rejected based on their respective rejections from at least a prior Office action (part(s) of recited again below).

### ***Response to Amendment***

#### ***Claim Objections***

11. Claims 21 and 22 are objected to because of the following informalities:

- a. Claim 21 recites the limitation "the random data output" in line 2. There is insufficient antecedent basis for this limitation in the claim. This objection propagates downward through dependent Claim 22.

- b. Claim 21 recites the limitation "the random sequence of values" in lines 5-6. There is insufficient antecedent basis for this limitation in the claim. This objection propagates downward through dependent Claim 22. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

12. In light of the applicant's respective arguments or respective amendments, the previous 35 USC § 112 rejections to the claims have been withdrawn.

***Claim Rejections - 35 USC § 102***

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 21 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by "Random Numbers" (Duckworth).

**Claim 21** can be mapped to Duckworth as follows: "A method for generating data, comprising:

- determining the random data output of a random data generator, wherein the output comprises a repeatable sequence of random numbers, wherein each of the random numbers comprises a numerical position; [Duckworth, p. 1, "Why

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Psuedo?" with Duckworth, p. 2, "Repeating Random Numbers" with Duckworth, p. 2 "Why Would I Want Repeating Random Numbers?"]

- determining a first seed value corresponding to a first numerical position of the random sequence of values, wherein inputting the first seed value into the random data generator will output the first numerical position; [Duckworth, p. 1, "Why Psuedo?" with Duckworth, p. 2, "Repeating Random Numbers" with Duckworth, p. 2 "Why Would I Want Repeating Random Numbers?"]
- inputting the first seed value; [Duckworth, p. 1, "Why Psuedo?" with Duckworth, p. 2, "Repeating Random Numbers" with Duckworth, p. 2 "Why Would I Want Repeating Random Numbers?"]
- receiving a first random number associated with the first numerical position" [Duckworth, p. 1, "Why Psuedo?" with Duckworth, p. 2, "Repeating Random Numbers" with Duckworth, p. 2 "Why Would I Want Repeating Random Numbers?"]].

**Claim 22** can be mapped to Duckworth as follows: "The method of claim 21, further comprising:

- determining a second seed value corresponding to a second numerical position of the random sequence of values, wherein inputting the second seed value into the random data generator will output the second numerical position; [Duckworth, p. 1, "Why Psuedo?" with Duckworth, p. 2, "Repeating Random Numbers" with Duckworth, p. 2 "Why Would I Want Repeating Random Numbers?"]

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- inputting the second seed value; [Duckworth, p. 1, "Why Psuedo?" with Duckworth, p. 2, "Repeating Random Numbers" with Duckworth, p. 2 "Why Would I Want Repeating Random Numbers?"] and
- receiving a second random number associated with the first numerical position." [Duckworth, p. 1, "Why Psuedo?" with Duckworth, p. 2, "Repeating Random Numbers" with Duckworth, p. 2 "Why Would I Want Repeating Random Numbers?"].

### ***Claim Rejections - 35 USC § 103***

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).



17. Claims 1-15 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over “Quickly Generating Billion-Record Synthetic Databases” (Gray et al.) in view of “Random Numbers” (Duckworth).

For **Claim 1**, Gray teaches: “One or more computer-readable storage media having stored thereon a set of computer-executable instructions to perform a method for generating data, [Gray, p. 243, Introduction with Gray, p. 244, Sequential Database Generation] the method comprising:

- ...accepting, as a first input, at least one of: (a) data sets and (b) data elements from which synthetic data is generated, said synthetic data having a sequence; [Gray, program 6, “answer cursor” (is a table which are data elements and/or data sets (2 cols. in this table)) with Gray, page 246, Generating Dense Unique Random Data]
- receiving a seed [Gray, p. 246, program 6, “i” in for loop #2 with Gray, p. 246, Generating Dense Unique Random Data (col. 1)] as a second input to a deterministic data generation module, the seed indicating a position in the sequence of the synthetic data, the position representing a starting point in the sequence from which the synthetic data is used as input to a process whose performance is to be evaluated” [Gray, p. 246, program 6, “i” with Gray, p. 246, Generating Dense Unique Random Data with Gray, p. 243, Abstract].

Gray discloses the above limitations but does not expressly teach:

- “...generating a plurality of collections of items of data each time the set of computer-executable instructions are executed, wherein each of the collections

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comprise contents and a sequence, and wherein the contents of each of the collections are identical and the sequence of each of the collections are identical

- ...wherein the seed is within a range allowed by at least one parameter of the data generation module, wherein the at least one parameter is configured to cause the data generation module to generate synthetic data, wherein the synthetic data is repeatable.”

With respect to Claim 1, an analogous art, Duckworth, teaches:

- “...generating a plurality of collections of items of data each time the set of computer-executable instructions are executed, wherein each of the collections comprise contents and a sequence, and wherein the contents of each of the collections are identical and the sequence of each of the collections are identical” [Duckworth, p. 1, “Why Psuedo?” with Duckworth, p. 2, “Repeating Random Numbers” with Gray, p. 246, Generating Dense Unique Random Data with program (8) with Gray, p. 247, program (13)]
- ...wherein the seed is within a range allowed by at least one parameter of the data generation module, wherein the at least one parameter is configured to cause the data generation module to generate synthetic data, wherein the synthetic data is repeatable” [Duckworth, p. 2, “Repeating Random Numbers”].

It would have been obvious to one of ordinary skill in the art at the time of invention to combine Duckworth with Gray because the inventions are directed towards creating data.

Duckworth's inventions would have been expected to successfully work well with Gray's invention because the inventions use random number generators to create data. Gray discloses quickly generating billion-record synthetic databases comprising data generators, however Gray does not explicitly disclose that the data generated is identical for each time the data is generated (repeatable) nor that the seed is within a range allowed by at least one parameter. Duckworth discloses a random number generator comprising seeding the random number generator to obtain repeatable random data.

It would have been obvious to one of ordinary skill in the art at the time of invention to take random number generator from Duckworth and install it into the invention Gray, thereby offering the obvious advantage of seeding a random number generator with the correct range so that repeatable random numbers are generated making testing is easier (Duckworth, p. 2, "Why Would I Want Repeating Random Numbers?").

**Claim 2** can be mapped to Gray (as modified by Duckworth) as follows: "The one or more computer-readable storage media as recited in claim 1, wherein the computer-executable instructions comprise a computing application" [Gray, page 243, Abstract with Gray, p. 246, program 6].

**Claim 3** can be mapped to Gray (as modified by Duckworth) as follows: "The one or more computer-readable storage media as recited in claim 2, wherein the computing application comprises a linear congruential generation function" [Gray, page 243, Abstract].

**Claim 4** can be mapped to Gray (as modified by Duckworth) as follows: “The one or more computer-readable storage media as recited in claim 1, wherein the seed is set for each discrete data element that may be re-generated” [Gray, page 246, program 6 with Duckworth, p. 2, “Repeating Random Numbers”].

**Claim 5** can be mapped to Gray (as modified by Duckworth) as follows: “The one or more computer-readable storage media in claim 1, wherein the computer-executable instructions operate to generate data in a serial fashion” [Gray, page 244-245, Sequential Database Generation].

**Claim 6** can be mapped to Gray (as modified by Duckworth) as follows: “The one or more computer-readable storage media as recited in claim 1, wherein the computer-executable instructions operate to generate data in a parallel fashion” [Gray, page 245, Parallel Database Generation].

**Claim 7** can be mapped to Gray (as modified by Duckworth) as follows: “The one or more computer-readable storage media as recited in claim 1, wherein the method is performed in a database environment” [Gray, page 243, Introduction].

**Claim 8** can be mapped to Gray (as modified by Duckworth) as follows: “The one or more computer-readable storage media as recited in claim 1, wherein the first input comprises any of a range of letters, a range of numbers, a range of strings, a range of data sets, letters, numbers, strings, and data sets” [Duckworth, p. 1, “Why Psuedo?” with Duckworth, p. 2, “Repeating Random Numbers” with Gray, page 246, Generating Dense Unique Random Data].

**Claim 9** can be mapped to Gray (as modified by Duckworth) as follows: “The one or more computer-readable storage media as recited in claim 1, wherein the method further comprises:

- using a communication means [Gray, p. 243, The Computation Model with Gray, p. 243, Fig. 2] to communicate the synthetic data to cooperating data environments” [Gray, p. 244, above table 3 with Gray, p. 243, Fig. 2].

**Claim 10** can be mapped to Gray (as modified by Duckworth) as follows: “The one or more computer-readable storage media as recited in claim 1, wherein the synthetic data is data for use in benchmarking activities having a predefined data schema definition” [Gray, page 243, Abstract].

For **Claim 11**, Gray teaches: “A method for generating data [Gray, page 243, Introduction] comprising:

- providing a deterministic data generation module stored on at least one medium, [Gray, page 243, Introduction with Gray, page 244, Sequential Database Generation] the deterministic data generation module accepting inputs for processing to generate a plurality of data sets, each data set having synthesized data [Gray, program 6, “answer cursor” with Gray, page 246, Generating Dense Unique Random Data] wherein within the data set each data element has a sequence number, and each data set is organized such that the data is positioned from lowest sequence number to highest sequence number in a sequential fashion, and [Gray, page 246, Generating Dense Unique Random

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Data with Gray, page 248, Generating Indices on Random Data with program (8) with Gray, p. 247, program (13)] and

- ...providing a seed [Gray, p. 246, program 6, i with Gray, p. 246, Generating Dense Unique Random Data (col. 1)] as input to the deterministic data generation module, the seed acting to position the deterministic data generation module to generate data having a predefined sequence number, wherein the seed value is derived from the predefined sequence number, and wherein the sequence number represents a starting point from which the synthetic data is used as input to process whose performance is to be evaluated [Gray, page 246, Generating Dense Unique Random Data] wherein the seed is within a range allowed by at least one parameter of the data generation module, wherein the at least one parameter is configured to cause the data generation module to generate synthetic data” [Gray, p. 246, program 6].

Gray discloses the above limitations but does not expressly teach:

- “...wherein the synthesized data of each data set is identical
- ... wherein the synthetic data is repeatable.”

With respect to Claim 20, an analogous art, Duckworth, teaches:

- “...wherein the synthesized data of each data set is identical [Duckworth, p. 1, “Why Psuedo?” with Duckworth, p. 2, “Repeating Random Numbers]
- ... wherein the synthetic data is repeatable” [Duckworth, p. 1, “Why Psuedo?” with Duckworth, p. 2, “Repeating Random Numbers].

It would have been obvious to one of ordinary skill in the art at the time of invention to combine Duckworth with Gray because the inventions are directed towards creating data.

Duckworth's inventions would have been expected to successfully work well with Gray's invention because the inventions use random number generators to create data. Gray discloses quickly generating billion-record synthetic databases comprising data generators, however Gray does not explicitly disclose that the data generated is identical for each time the data is generated (repeatable). Duckworth discloses a random number generator comprising seeding the random number generator to obtain repeatable random data.

It would have been obvious to one of ordinary skill in the art at the time of invention to take random number generator from Duckworth and install it into the invention Gray, thereby offering the obvious advantage of seeding a random number generator with the correct range so that repeatable random numbers are generated making testing is easier (Duckworth, p. 2, "Why Would I Want Repeating Random Numbers?").

**Claim 12** can be mapped to Gray as follows: "The method as recited in claim 11, further comprising communicating the synthesized data to cooperating data environments" [Gray, page 244, above table 3].

**Claim 13** can be mapped to Gray as follows: "The method as recited in claim 11, further comprising changing the value of the seed" [Gray, p. 246, Program 6].

**Claim 14** can be mapped to Gray as follows: “The method as recited in claim 11, processing the synthesized data by cooperating environments as part of a benchmarking study” [Gray, p. 243, Abstract with Gray, p. 243, Introduction in (col. 1)].

**Claim 15** can be mapped to Gray as follows: “The method as recited in claim 11, further comprising schematizing the synthesized data according to a predefined data schema definition” [Gray, page 247, program 13].

For **Claim 20**, Gray teaches: “A method to generate ... synthesized data [Gray, page 243, Introduction] comprising:

- executing a deterministic data generation function to generate a plurality of data sets [Gray, page 243, Introduction] corresponding to sequential numbers, the numbers associated with a data element of each data set; [Gray, page 246, Generating Dense Unique Random Data with program (8) with Gray, p. 247, program (13)]
- setting a seed [Gray, page 246, program 6 with Gray, page 247, program 13 with Gray, page 248, program 18 with Gray, page 250, Generating Non Uniform Data] to act as input for the deterministic data generation function such that the input drives the deterministic data generation function to generate data corresponding to a particular sequential number [Gray, page 246, Generating Dense Unique Random Data, specifically, the first paragraph under the heading] and
- testing performance of a system by providing said data set as input to said system and measuring behavior of said system using said data set” [Gray, p. 243, Abstract with Gray, p. 243, Introduction in (col. 1)].



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Gray discloses the above limitations but does not expressly teach: "...repeatable

- ...wherein each data element and associated number are identical in each data set
- ...wherein the seed is within a range allowed by at least one parameter of the data generation function, wherein the at least one parameter is configured to cause the data generation function to generate synthetic data which is repeatable, wherein the seed is set for each discrete data element that may be re-generated."

With respect to Claim 20, an analogous art, Duckworth, teaches: "...repeatable [Duckworth, p. 1, "Why Psuedo?" with Duckworth, p. 2, "Repeating Random Numbers"]

- ...wherein each data element and associated number are identical in each data set [Duckworth, p. 1, "Why Psuedo?" with Duckworth, p. 2, "Repeating Random Numbers"]
- ...wherein the seed is within a range allowed by at least one parameter of the data generation function, wherein the at least one parameter is configured to cause the data generation function to generate synthetic data which is repeatable, wherein the seed is set for each discrete data element that may be re-generated" [Duckworth, p. 2, "Repeating Random Numbers"].

It would have been obvious to one of ordinary skill in the art at the time of invention to combine Duckworth with Gray because the inventions are directed towards creating data.

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Duckworth's inventions would have been expected to successfully work well with Gray's invention because the inventions use random number generators to create data. Gray discloses quickly generating billion-record synthetic databases comprising data generators, however Gray does not explicitly disclose that the data generated is identical for each time the data is generated (repeatable) nor that the seed is within a range allowed by at least one parameter. Duckworth discloses a random number generator comprising seeding the random number generator to obtain repeatable random data.

It would have been obvious to one of ordinary skill in the art at the time of invention to take random number generator from Duckworth and install it into the invention Gray, thereby offering the obvious advantage of seeding a random number generator with the correct range so that repeatable random numbers are generated making testing is easier (Duckworth, p. 2, "Why Would I Want Repeating Random Numbers?").

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Conclusion***

19. Any prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is advised that, although not used in the rejections above, prior art cited on any PTO-892 form and not relied upon is considered materially relevant to the applicant's claimed invention and/or portions of the claimed invention.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brent S. Stace whose telephone number is 571-272-8372 and fax number is 571-273-8372. The examiner can normally be reached on M-F 9am-5:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu M. Mofiz can be reached on 571-272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/B. S./  
Examiner, Art Unit 2161

/Apu M Mofiz/  
Supervisory Patent Examiner, Art Unit 2161